Claims

1. Polysiloxane compositions which cross-link by condensation and contain

a) at least one cross-linkable polysiloxane, that contains as a reactive terminal group at least one of the following groups

$-O-SiR^1{}_2OH$, $-O-SiR^1(OR^2)_2$, $-O-Si(OR^2)_3$,

wherein

R^1 denotes optionally substituted C_1-C_8-alkyl, C_6-C_{14}-aryl or C_2-C_8-alkenyl groups and

R^2 denotes optionally substituted linear or branched C_1-C_8-alkyl or C_2-C_8-alkoxyalkyl groups, and R^1 and R^2 can be the same or different within the molecule,

b) at least one basic filler and optionally other fillers,

c) at least one phosphorus compound from the group comprising orthophosphoric acid esters of the following formula I

$O=P(OR^3)_{3-n}(OH)_n$,

in which

n = 0, 1 or 2 and

R^3 = an optionally substituted linear or branched C_1-C_{30}-alkyl, C_1-C_{30}-acyl, C_2-C_{30}-alkenyl, C_2-C_{30}-alkoxyalkyl, C_5-C_{14}-cycloalkyl or

C_6-C_{10}-aryl group or a triorganosilyl or diorganoalkoxysilyl group which can be the same or different within the molecule,

and/or an ester of polyphosphoric acid,

d) at least one alkoxysilane cross-linking agent of the formula

$R^1{}_xSi(OR^2)_{4-x}$,

wherein

x = 0 and 1, and

R^1 and R^2 can be the same or different within the molecule,

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e) at least one organometallic compound and

f) optionally other auxiliary substances.

2. Polysiloxane compositions which cross-link by condensation, according to Claim 1, characterized in that the cross-linkable polysiloxane a) has a viscosity of between 0.1 and 1000 Pa.s.

3. Polysiloxane compositions which cross-link by condensation, according to ~~one of Claims 1 and 2~~ Claim 1, characterized in that the basic fillers b) are precipitated or ground chalks.

4. Polysiloxane compositions which cross-link by condensation, according to ~~one of Claims 1 to 3~~ Claim 1, characterized in that the phosphorus compound c) is an ester of orthophosphoric acid containing at least one optionally substituted linear or branched C_4-C_{30}-alkyl group R^3.

5. Polysiloxane compositions which cross-link by condensation, according to ~~one of Claims 1 to 4~~ Claim 1, characterized in that the alkoxysilane cross-linking agent d) is tetraethoxysilane, tetra-n-propoxysilane, methyltri-

ethoxysilane, methyltrimethoxysilane, methyltri(2-methoxyethoxy)silane, vinyltrimethoxysilane or vinyltriethoxysilane.

Polysiloxane compositions which cross-link by condensation, according to ~~Claims 1 to 5~~ Claim 1, characterized in that the organometallic compound e) is an organic titanium or tin compound.

7. Polysiloxane compositions which cross-link by condensation, according to ~~Claims 1 to 6~~ Claim 1, characterized in that the auxiliary substances f) are plasticizers, catalysts, bonding agents, pigments and/or fungicides.

8. Polysiloxane compositions which cross-link by condensation, according to ~~Claims 1 to 7~~ Claim 1, characterized in that they consist of

100 parts by weight of a),
10 to 250 parts by weight of b),
0.1 to 25 parts by weight of c),
1 to 30 parts by weight of d),
0.1 to 20 parts by weight of e) and
0 to 240 parts by weight of f).

9. Polysiloxane compositions which cross-link by condensation, according to ~~Claims 1 to 7~~ Claim 1, characterized in that the auxiliary substance f) has the following composition:

0-100 parts by weight of plasticizers,
0-20 parts by weight of bonding agents,
0-100 parts by weight of pigments,
0-20 parts by weight of fungicides,

the sum of all the components f) in the mixture amounting to a maximum of 240 parts by weight.

10. Process for the production of the polysiloxane compositions which cross-link by condensation, according to ~~Claims 1 to 9~~ Claim 1, characterized in that the basic fillers b) and the phosphorus compound c), optionally dissolved in a solvent, are mixed in a preliminary operation.

11. Surface-modified fillers which are obtainable by reacting at least one basic filler b) with at least one phosphorus compound c) from the group comprising orthophosphoric acid esters of the following formula I

$$O = P(OR^3)_{3-n}(OH)_n,$$

in which

n = 0, 1 or 2 and

R^3 = an optionally substituted linear or branched C_1-C_{30}-alkyl, C_1-C_{30}-acyl, C_2-C_{30}-alkenyl, C_2-C_{30}-alkoxyalkyl, C_5-C_{14}-cycloalkyl or C_6-C_{10}-aryl group or a triorganosilyl or diorganoalkoxysilyl group which can be the same or different within the molecule,
wherein R^3 is preferably C_1-C_{30}-alkyl,

and/or esters of polyphosphoric acid,

if appropriate in a solvent.

12. Use of the surface-modified fillers according to claim 11, in polysiloxane compositions, plastics, paints or lacquers.

13. Use of the polysiloxane compositions which cross-link by condensation according to ~~Claims 1 to 9~~ Claim 1, as sealants, adhesives or coating compositions.

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